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**Focused Site Inspection Prioritization Report**

**for the**

**Ilada Waste Company**

**USEPA ID No. ILD 980 497 978**

**August 9, 1995**

**Prepared for  
U.S. Environmental Protection Agency  
Contract 68-W8-0064  
Work Assignment 32-5JZZ**

**For U.S. Environmental Protection Agency, Region V**

**Approved by:** Alan Altman

**Date:** 9/29/95

**For Illinois Environmental Protection Agency**

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**Date:** \_\_\_\_\_

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## **1.0 Introduction**

On December 13, 1994, Black & Veatch Waste Science, Inc., the Alternate Remedial Contracting Strategy (ARCS) V contractor, was authorized, by approval of the work plan amendment by the U.S. Environmental Protection Agency (USEPA) Region V, to conduct a focused site inspection prioritization (FSIP) of several sites in Illinois.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) established a federal program for responding to the risks posed by uncontrolled releases of hazardous substances. CERCLA required the federal government to establish criteria for setting priorities among releases or threatened releases and specified these criteria be used to establish the National Priorities List. The USEPA responded to these mandates by developing the Hazard Ranking System (HRS) to more accurately quantify the relative risk posed by hazardous waste substance releases. A revised HRS was published in December 1990.

The objective of the FSIP is to review the outstanding screening site inspections (SSIs) performed before the implementation of the revised HRS for which a final decision has not been made regarding further action. The FSIP will determine whether the existing SSI information meets a minimum standard to reflect the revised HRS, and, if not, collect additional information by file review, reconnaissance and sampling on an as-needed basis. The FSIP will evaluate the threats posed to human health and the environment and provide sufficient documentation for USEPA to decide the appropriate future course of action (no further remedial action planned [NFRAP], further evaluation, or preparation of an HRS package).

## **2.0 Site Background**

### **2.1 Site History**

Ilada Waste Company, located on Rural Route 1, Dupon, St. Clair County, Illinois, was a crude oil processing facility that provided fuel oil and crude oil for application to county dirt roads. Figure 1 is a site location map; Figure 2 is a site sketch.

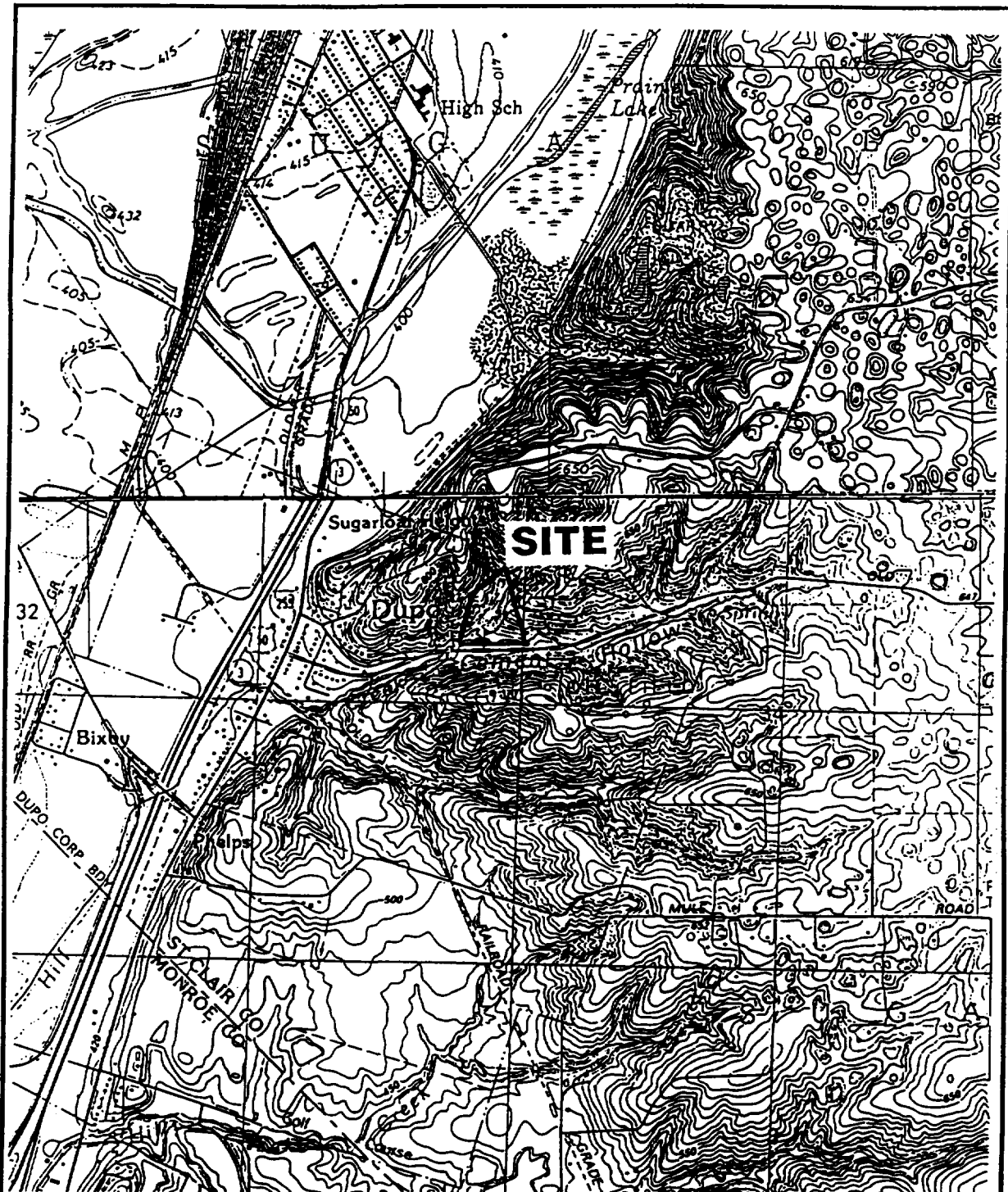
The site operated from 1939 to the mid-1980s. Waste was stored in drums, tanks, and open holding pits. Unused waste oil was disposed of in an onsite injection well. The facility was listed in the Comprehensive Environmental Response, Compensation, and Liability Information System on May 1, 1980, as a result of the filing of a Resource Conservation and Recovery Act (RCRA) Part A application. The permit application stated that site operations began on October 22, 1979. The site collected, stored, and transferred crude and used oils. The site had tank capacity for 305,640 gallons, and treatment capacity for 3,054 gallons per day. RCRA wastes produced onsite were described as ignitable petroleum refining wastes that contained lead.

### **2.2 Past Site Characterization Studies**

On January 8, 1980, the IEPA granted an experimental development permit to Ilada Energy Company to store, transfer, process, and recover waste oil and oil sludge. In April 1981, the IEPA denied the application for permit renewal.

On April 13, 1980, the IEPA performed a preliminary assessment (PA) on the site. The PA report stated the site was permitted to treat and store waste oil. No violations were found.

In August 1981, the IEPA collected 13 samples of liquids and waste oils from tanks and lagoons onsite. Samples were analyzed for polychlorinated biphenyls (PCBs), heavy metals, and organic solvents. Storage tanks showed high PCB concentrations [21 parts per million (ppm)], volatile organic compounds, and aliphatic hydrocarbons. A PCB concentration of 19 ppm was found in a lagoon. The IEPA collected surface water and sediment samples from two locations in Hill Creek, which runs through the site. One location was upstream of the site, and the other was downstream. Samples were analyzed for PCBs, organic compounds, and metals. PCB concentrations in sediments ranged from 0.13 ppm to 1.0 ppm; PCBs were not



Source:  
USGS Cahokia Quadrangle, 1974  
Columbia, 1991

Scale:  
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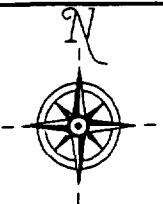
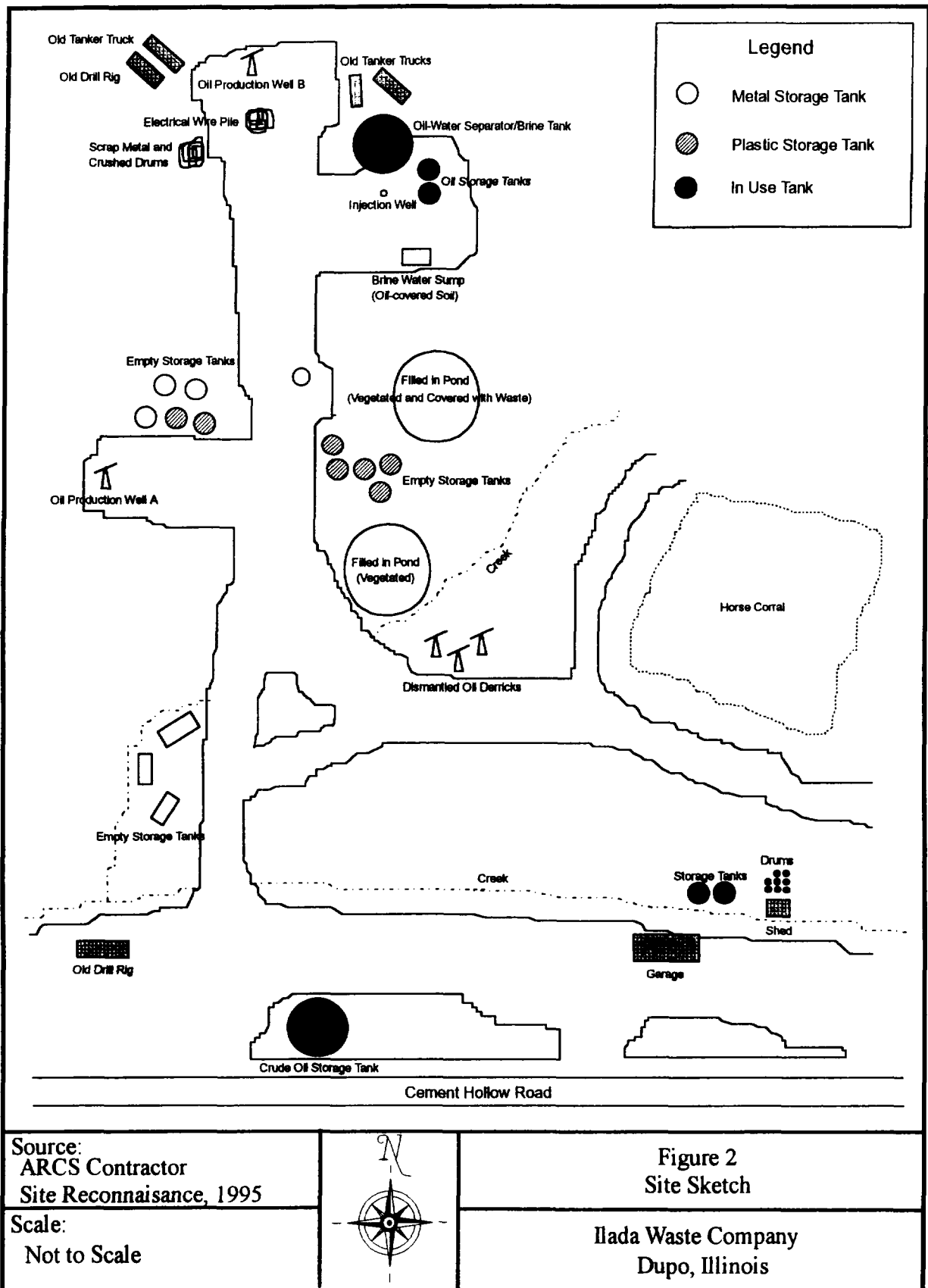


Figure 1  
Site Location Map

Ilada Waste Company  
Dupo, Illinois



detected in the surface water samples. Other organic compounds were not detected in sediment or surface water samples.

On January 26, 1983, the IEPA collected five soil samples from onsite excavations. Samples were analyzed for PCBs and organic constituents. PCB concentrations ranged from 0.97 ppm to 23 ppm, and aliphatic hydrocarbon concentrations ranged from 660 ppm to 1,800 ppm.

In June 1983, PEDCo Environmental Inc., through a USEPA RCRA implementation contract, collected seven oil/water samples from the waste injection well and five oil/water samples from the two oil production wells. The USEPA Office of Enforcement, National Enforcement Investigation Center (NEIC), analyzed the oil/water samples, which were collected from various levels of the two oil extraction wells and the brine injection well, for dissolved metals, PCBs, trichloroethene, and 2,3,7,8-tetrachlorodibenzo-p-dioxin. The brine injection well had PCB concentrations ranging from 41 ppm to 76 ppm, and a trichloroethene concentration of 160 ppm. Dioxin was not detected. NEIC collected 17 soil samples from locations affected by past site activities, including old lagoon areas, tank areas, production well areas, and the old injection well area. PCBs in soil ranged from 0.2 ppm to 78 ppm.

On July 3, 1986, Ecology and Environment, Inc., conducted a site inspection. No samples were collected; however, USEPA Form 2070-13 was completed and several photos were taken.

On June 9, 1993, a site inspection prioritization report was prepared. Additional soil, surface water, and groundwater sampling was recommended to characterize further the extent of contamination.

In January 1995, the Alternative Remedial Contracting Strategy (ARCS) contractor reviewed background data for the Ilada Waste Company site and performed a reconnaissance visit.

### **2.3 FSIP Site Reconnaissance/Sampling**

The ARCS contractor conducted a reconnaissance on April 19, 1995. Charles Larson, the site owner, was present during the visit. Appendix A contains site reconnaissance photographs.

Current site activities include oil production from two onsite oil wells. Each well produces about 2 barrels of oil per day. The oil and brine solution is sent to an open steel basin for oil-water separation. The oil is stored in a tank next to the separator before it is piped to a large blue oil storage tank at the front of the site,

near the road. The brine is pumped over the hill, to the east of the site, and injected into an offsite deep injection well. The onsite deep injection well is not in use. The IEPA required that this well must be repaired according to IEPA guidelines before it can be used again. Ponds and lagoons observed during previous inspections were no longer present. All ponds and lagoons, except one, were filled with soil by the previous owner and are covered with vegetation. Mr. Larson filled the remaining pond with approximately 4 feet of soil after he purchased the site. The pond is covered with dense vegetation and scrap piles. Many empty steel and plastic 5,000 gallon storage tanks are laying around the site. Several large storage tanks, which have been cleaned and cut open, are being used as equipment storage sheds. Three old oil tanker trucks are abandoned onsite. The trucks are very old and show no signs of leakage. Many junk piles are scattered around the site; some have oil stains around them. Soil around the oil production wells, oil-water separator, and brine water sump were stained with oil. Several drums of gear oil and grease were behind the garage. Although some drums did not have labels, they resembled oil and grease drums. The injection well is uncapped and open at the ground surface.

During heavy rainfall, the onsite creek floods the garage and washes debris downstream. Approximately 12 years ago, oil spilled into the onsite creek. The U.S. Coast Guard traced it back to the site. Mr. Larson spent \$12,000 to clean up the oil spill. The creek is not a fishery before it flows into the Mississippi River.

The city of Dupo supplies area drinking water. No residential wells were located near the site.



### **3.0 Pathway Evaluation**

A review of the records obtained by the ARCS contractor indicates the site wastes are a possible source of contamination. The program evaluated four contaminant transport pathways: groundwater, surface water, soil exposure, and air.

#### **3.1 Groundwater Pathway**

The site rests atop a bluff composed of limestone bedrock. The site overlooks the Mississippi River alluvial valley, which is composed of 100 to 200 feet of sands and gravels. These alluvial deposits extend to within one-quarter mile of the site before pinching out against the limestone bluffs. The depth to the alluvial aquifer from surface is approximately 50 feet. The bluffs and the area east of the bluffs are covered by a thin layer of till. The Mississippi Valmeryon aquifer is composed of karst limestone and some shale. Numerous sink holes and springs are in the limestone. The alluvial aquifer is likely to be interconnected because of the similar water level elevations of the aquifers and the absence of any hydraulic barriers.

Area residents receive their water from either private groundwater wells or surface water. A review of Illinois State Water Survey database information suggests that private wells are finished in the alluvial valley and Valmeryon bedrock aquifers. No municipal wells are located within 4 miles of the site.

The nearest drinking water well is located 0.25 miles from the site and is screened in the Valmeryon bedrock aquifer. An estimated 1,181 people are served by wells within a 4-mile radius of the site.

#### **3.2 Surface Water Pathway**

Site runoff enters Hill Creek, which flows through the site. The 15-mile surface water pathway consists of Hill Creek (0 to 2.5 miles), Hill Lake Creek (2.5 to 4.3 miles), Palmer Creek (4.3 to 5.5 miles), and the Mississippi River (5.5 to 15 miles). All four water bodies have wetlands along their banks. Hill Lake Creek, Palmer Creek, and the Mississippi River are considered fisheries.

#### **3.3 Soil Exposure Pathway**

Surface soil samples indicate the presence of PCBs. Open crude oil storage tanks and oil stained soil are onsite. The site is not fenced and is accessible to trespassers. There are 4 workers onsite. Approximately 573 people reside within one mile of the site.

### **3.4 Air Pathway**

No air contamination has been documented or reported. No air samples have been collected at the site. Approximately 19,874 people live within a 4-mile radius of the site. Sensitive environments within a 4-mile radius include approximately 125 acres of wetlands, 6 natural areas, and two endangered species.

## **4.0 Summary**

The ARCS contractor conducted a thorough review of the available files associated with the Ilada Waste Company and conducted a site reconnaissance.

## **5.0 References**

ARCS Contractor, Field Book of Reconnaissance Visit. April 19, 1995.

Ecology & Environment, Inc., Site Inspection Report for Ilada Waste Oil/Ilada Energy, August 25, 1986.

Illinois Environmental Protection Agency, Analysis of water, soil, and oil samples from Ilada Energy, Inc., 1983.

Illinois Natural Heritage Database, Lists of Illinois Natural Areas Inventory, Nature Preserves and Endangered and Threatened Species Groups by county, 1992.

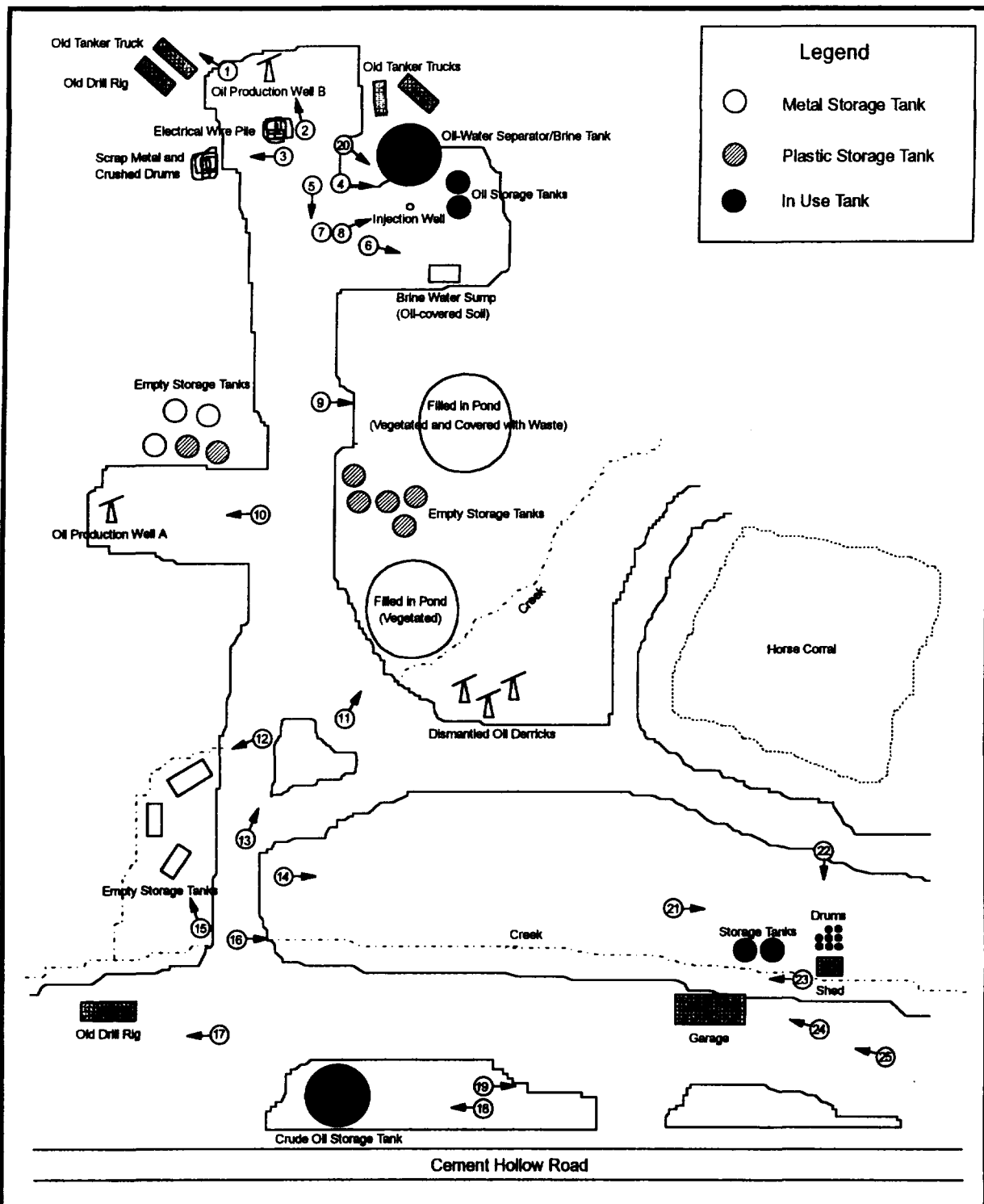
Illinois State Water Survey, Water Well Database, St. Clair County, Illinois.

U.S. Department of Commerce, 1990 Census of Population and Housing, Illinois.

U.S. Department of the Interior, National Wetlands Inventory, 7.5 Minute Quadrangle, Columbia, IL (1988).

U.S. Geological Survey, 7.5 Minute Quadrangle Topographic Map, Columbia, IL (1991); Cahokia, IL (1974); Oakville, IL (1982), Webster Groves, IL (1979).

**Appendix A**  
**Site Reconnaissance Photographs**



<p>Source: ARCS Contractor Site Reconnaissance, 1995</p>		<p>Figure A-1 Photograph Location Map</p>
<p>Scale: Not to Scale</p>		<p>Ilada Waste Company Dupu, Illinois</p>